NEHA SUNIL

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EDUCATION

CALTECH | 2015 – 2019
Pasadena, CA | G.P.A. 4.0
B.S. Mechanical Engineering
- Depth in Robotics

COURSEWORK
- Capstone Design Contest
- Robotics, Autonomy, Mechatronics
- Mechanics, Thermal Science, Fluid Dynamics
- Experiments & Modeling in Mechanical Engineering, Microfabrication Lab
- Biology Lab, Nanorobotics, Computation & Neural Systems, Decision Making
- Core Math, Physics, Chemistry, and CS

SKILLS

PROGRAMMING
- Python, Java, C, C++
- Mathematica, Matlab, Octave, R
- HTML, CSS

ROBOTICS
- Raspberry Pi, Arduino, Code Composer Studio
- ROS
- OpenCV

ENGINEERING
- Solidworks
- ANSYS (CFD, FEA)
- Excel (VB)

CREATIVE
- Photoshop
- InDesign
- Final Cut Pro
- Microsoft Office

WORK EXPERIENCE

CALTECH | Electronic skin development with Daraio & Ames Labs
Student Researcher | September 2018 –
- Developing flexible force sensing array for bipedal robot

VERB SURGICAL | Google and J&J robotic surgery partnership
Mechanical Engineering Intern | June – September 2018
- Robotics experience in sensors and controls
- Fixture and light pipe design

KRAENION | Startup developing applied computer vision solutions
Robotics Intern | December 2017
- Prepared forklift prototype to demo stereo vision technology

NIMA LABS | Portable food allergen sensor startup
Mechanical Engineering Intern | June – September 2016, 2017
- 2016: Tested multi-channel version of consumer device and isolated key variables affecting chemistry development and camera readings
- 2017: Redesigned multi-channel device from scratch. Created manufacturing and assembly drawings and worked with vendors

STANFORD UNIVERSITY
Computational Genomics Intern | June – August 2014
- Created a tool in R to select RNA guides for CRISPR/Cas9 library

PROJECTS

More projects and details at **nehasunil.com**
- RC Car with Computer Vision, Ackerman Steering, Independent Suspension & Nerf Ball Shooter
- D* Lite Path Planner for ROS Navigation Stack
- Vehicle Teleoperation with Haptic Feedback
- Tank with Robotic Arm
- Autonomous Warehouse Product Locator
- Ultrasonic Signal-Seeking Pontoon Boat

ACHIEVEMENTS

- Tau Beta Pi Engineering Honor Society Member
- Certified Yoga Instructor
- 2nd Degree Black Belt in Taekwondo
- Successful Aging Mini-Fellowship: Stanford School of Medicine
- America Library of Poetry Publication
- Scholastic Art & Writing Award (Photography)
- National Scholastic Press Association Journalism Honor Roll